

Claims

What is claimed is:

1. A device for regulating the flow of intravenous fluid comprising:
a top having an inlet;
5 a bottom having an outlet;
wherein the top and the bottom are rotatably connected and define a housing;
wherein the inlet and outlet define a fluid passage through the housing for the
intravenous fluid; and
wherein at least either the top or the bottom comprises parylene.
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2. The device of claim 1 wherein the device is characterized in having a medium static
turning torque less than about 42 in.-oz.
3. The device of claim 2 wherein the device is characterized in having a medium dynamic
15 turning torque, and wherein a sum of the medium turning torques is less than about 84
in.-oz.
4. The device of claim 1 wherein the parylene is selected from the group consisting of
parylene N, parylene C, and parylene D.
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5. The device of claim 1 further comprising a diaphragm disposed in the housing.
6. The device of claim 5 further comprising a diaphragm holder disposed in the housing
proximate to the bottom, wherein the diaphragm is adapted to be sealingly engaged to the
25 diaphragm holder.
7. The device of claim 6 wherein the diaphragm holder further comprises parylene.
8. The device of claim 7 wherein the device is characterized in having a medium dynamic
30 turning torque and a medium static turning torque, and wherein a sum of the medium
turning torques is less than about 84 in.-oz.
9. The device of claim 7 wherein the sum of the medium turning torques is less than about
35 61 in.-oz.

10. A device for regulating the flow of intravenous fluid comprising:
a top having an inlet;
a bottom having an outlet;
5 wherein the top and the bottom are rotatably connected and define a housing;
wherein the inlet and outlet define a fluid passage through the housing for the
intravenous fluid;
a diaphragm holder disposed in the housing; and
wherein at least either the top or bottom or the diaphragm holder comprises
10 parylene.
11. The device of claim 10 wherein the device is characterized in having a medium static
turning torque less than about 42 in.-oz.
- 15 12. The device of claim 11 wherein the device is characterized in having a medium dynamic
turning torque, and wherein a sum of the medium turning torques is less than about 84
in.-oz.
- 20 13. The device of claim 10 wherein the parylene is selected from the group consisting of
parylene N, parylene C, and parylene D.
14. The device of claim 10 further comprising a diaphragm disposed in the housing and
adapted to be sealingly engaged to the diaphragm holder
- 25 15. The device of claim 14 wherein the diaphragm holder comprises parylene.
16. The device of claim 15 wherein the device is characterized in having a medium dynamic
turning torque and a medium static turning torque, and wherein a sum of the medium
turning torques is less than about 84 in.-oz.
- 30 17. The device of claim 10 further comprising a channel disposed in the diaphragm holder.
18. The device of claim 10 wherein the parylene has a thickness of about .10 microns to
about 3.0 microns